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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/030,971	05/02/2002	Nils Brunner	99999.000309	2813

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EXAMINER	
QAZI, SABIHA NAIM	
ART UNIT	**PAPER NUMBER**
1616	

DATE MAILED: 02/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/030,971	BRUNNER ET AL.	
	Examiner	Art Unit	
	Sabiha Qazi	1616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 November 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *28,31-44,48,50,57 and 58* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) *28,31-44,48,50,57 and 58* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Final Office Action

Acknowledgement is made of the response filed on 11/15/2005. Claims 28, 31-44, 48, 50, 57 and 58 are pending. No claim is allowed. Amendments are entered. This application is a 371 of PCT/DK00/00406 filed on 7/17/2000.

Method of use of *the extract of Actaea racemosa, syn. Cimicifuga recemosa* (Black Cohosh).

Response to Arguments

- Previous rejection is maintained, as arguments are not found persuasive.
- Nesselhut et al. teaches the treatment when suffering from a neoplastic or pre-neoplastic diseases see lines 48-55 in column 3.

Information Disclosure Statement

1. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

List of the references are cited in specification on pages 39-41.

Claim Rejections - 35 USC § 112

2. Claims 28, 31-44, 48, 50, 57 and 58 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. .

There is support in claim 28 for "symptoms associated therewith in a woman" wherein the woman has breast cancer, has had breast cancer, or has a risk of developing breast cancer"

This is considered new matter. Applicant must show where is the support in the disclosure.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 28 is rejected under 35 U.S.C. 102(b) as being anticipated by NESSELHUT et al[1]. The prior art discloses a pharmaceutical composition and method for treatment of breast cancer, comprising an effective amount of extract of Cimicifuga (SP-001) and an effective amount of at least one antiestrogenic compound, which discloses the presently claimed invention. See the entire document especially lines 40-67 in col. 2, summary of invention, examples, and figure.

See line 15 in col. 4 where human breast cancer line was used for the least. Furthermore, the reference discloses the treatment for "the patient generally will be in need of the treatment when suffering from a neoplastic or pre-neoplastic disease (lines 49-56 in col. 3.

The prior art discloses: "The effect, according to the invention, of the Cimicifuga extract on the proliferation of estrogen-dependent carcinoma cells, in particular mammary carcinoma cells, was determined in vitro using a test system of MCF 7 cells. The MCF 7-cell line is an established in-vitro model for estrogen-dependent tumors, which possess both estrogen receptors and aromatase activity. The human breast cancer cell line was derived from a pleural effusion associated with a metastasizing mammary tumor and possesses significant quantities of 17.beta receptors (Schwarte, A. (1994) Wirkspektrum ausgewahlter Flavonoide auf die humane Brustkrebslinie MCF-7: Eine in vitro Studies [Activity spectrum of selected flavonoids on the human breast cancer cell line MCF 7: An in-vitro study]. Witten-Herdecke, University, Field of Medicine, Dissertation 1994). The effect of Cimicifuga extract on the proliferation of the MCF 7 cells were determined by measuring the incorporation of radioactively labeled thymidine."[2]

The reference discloses, "In one embodiment, composition comprising an extract of a medicinal plant of the genus Cimicifuga is administered to a patient---", see lines 10-15 in col. 2.

Claim Rejections - 35 USC § 112

Claims 28, 31-44, 48, 50, 57 and 58 rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for the treatment of breast cancer by using *Cimicifuga racemosa* extract, does not reasonably provide enablement for the **method for**

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[1] United States Patent No. 6,267,994 B1. See the entire document.

treating an estrogen deficient women has a *risk* of developing breast cancer. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use of the invention commensurate in scope with these claims.

The factors to be considered in determining whether a disclosure meets the enablement requirement of 35 U.S.C. 112, first paragraph, have been described in *In re Wands*, 8 USPQ2d 1400 (Fed. Cir. 1988). Among these factors are: (1) the nature of the invention; (2) the state of the prior art; (3) the relative skill of those in the art; (4) the predictability or unpredictability of the art; (5) the breadth of the claims; (6) the amount of direction or guidance presented; (7) the presence or absence of working examples; and (8) the quantity of experimentation necessary. When the above factors are weighed, it is the examiner's position that one skilled in the art could not practice the invention without undue experimentation.

The nature of the invention

Presently claimed invention is drawn to a method for treating which are caused by estrogenic deficiency (claim 28). There is no support for the methods of claims 28, 31-44, 48, 50, 57 and 58 as they are drawn to a method for treating an estrogen deficient women who suffers from breast cancer or has a risk of developing breast cancer, wherein said women demonstrates symptoms of estrogenic deficiency.

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[2] Lines 9-67 in col. 4.

***The predictability or unpredictability of the art*:**

There is no support for how the diseases such as "brain related disease", "a bone and joint related disease" (claim 43) can be successfully treated. In claim 34 citation of "wherein the estrogen like effect processed by the composition manifests itself in the composition being capable of inducing a lowering in FSH and LH in a woman" is not supported in specification. Similarly in claim 35 the support of "wherein the estrogen like effect possessed by the composition manifests itself in the composition being capable of inducing an estrogen like change in vaginal cytology in a woman". Invention as claimed couldn't be predicted seeing the results presented in the disclosure.

In WO 98/50026 discloses the treatment or prevention of menopausal symptoms and osteoporosis by using isoflavone. See for menopausal symptoms lines 10-28 on page 1; lines 1-14 on page 2; and examples. There is nothing about any symptoms related to such as "brain related diseases" as has been presently claimed. It is therefore, unpredictable by seeing the disclosure of the present invention.

There is a general lack of predictability in the pharmaceutical art. *In re Fisher*, 427 F.2d 833, 166 USPQ 18 (CCPA 1970). Therefore predicting the method of treating, curing and The amount of guidance or direction needed to enable the invention is inversely related to the amount of knowledge in the state of the art as well as the predictability in the art. *In re Fisher*, 427 F.2d 833, 839, 166 USPQ 18, 24 (CCPA 1970). The "amount of guidance or direction" refers to that information in the application, as originally filed, that teaches exactly how to make or use the invention. The more that is known in the prior art about the nature of the invention, how to make,

and how to use the invention, and the more predictable the art is, the less information needs to be explicitly stated in the specification. In contrast, if little is known in the prior art about the nature of the invention and the art is unpredictable, the specification would need more detail as to how to make and use the invention in order to be enabling. >See, e.g., *Chiron Corp. v. Genentech Inc.*, 363 F.3d 1247, 1254, 70 USPQ2d 1321, 1326 (Fed. Cir. 2004) ("Nascent technology, however, must be enabled with a 'specific and useful teaching.' The law requires an enabling disclosure for nascent technology because a person of ordinary skill in the art has little or no knowledge independent from the patentee's instruction. Thus, the public's end of the bargain struck by the patent system is a full enabling disclosure of the claimed technology."

The "predictability or lack thereof" in the art refers to the ability of one skilled in the art to extrapolate the disclosed or known results to the claimed invention. If one skilled in the art can readily anticipate the effect of a change within the subject matter to which the claimed invention pertains, then there is predictability in the art. On the other hand, if one skilled in the art cannot readily anticipate the effect of a change within the subject matter to which that claimed invention pertains, then there is lack of predictability in the art. Accordingly, what is known in the art provides evidence as to the question of predictability. In particular, the court in *In re Marzocchi*, 439 F.2d 220, 223-24, 169 USPQ 367, 369-70 (CCPA 1971), stated:

[I]n the field of chemistry generally, there may be times when the well-known unpredictability of chemical reactions will alone be enough to create a reasonable doubt as to the accuracy of a particular broad statement put forward as enabling support for a claim. This will

especially be the case where the statement is, on its face, contrary to generally accepted scientific principles. Most often, additional factors, such as the teachings in pertinent references, will be available to substantiate any doubts that the asserted scope of objective enablement is in fact commensurate with the scope of protection sought and to support any demands based thereon for proof.

The scope of the required enablement varies inversely with the degree of predictability involved, but even in unpredictable arts, a disclosure of every operable species is not required. A single embodiment may provide broad enablement in cases involving predictable factors, such as mechanical or electrical elements. *In re Vickers*, 141 F.2d 522, 526-27, 61 USPQ 122, 127 (CCPA 1944); *In re Cook*, 439 F.2d 730, 734, 169 USPQ 298, 301 (CCPA 1971). However, in applications directed to inventions in arts where the results are unpredictable, the disclosure of a single species usually does not provide an adequate basis to support generic claims. *In re Soll*, 97 F.2d 623, 624, 38 USPQ 189, 191 (CCPA 1938). In cases involving unpredictable factors, such as most chemical reactions and physiological activity, more may be required. *In re Fisher*, 427 F.2d 833, 839, 166 USPQ 18, 24 (CCPA 1970) (contrasting mechanical and electrical elements with chemical reactions and physiological activity). See also *In re Wright*, 999 F.2d 1557, 1562, 27 USPQ2d 1510, 1513 (Fed. Cir. 1993); *In re Vaeck*, 947 F.2d 488, 496, 20 USPQ2d 1438, 1445 (Fed. Cir. 1991). This is because it is not obvious from the disclosure of one species, what other species will work. See MPEP 2164.03.

relieving by using "steroidal estrogen" is impossible. There are more than thousands of known steroidal estrogens.

The amount of direction or guidance presented

A disclosure should contain representative examples, which provide reasonable assurance to one skilled in the art that the compounds fall within the scope of a claim will possess the alleged activity. See *In re Riat* et al. (CCPA 1964) 327 F2d 685, 140 USPQ 471; In re Barr et al. (CCPA 1971) 444 F 2d 349, 151 USPQ 724.

In re Dreshfield, 110 F.2d 235, 45 USPQ 36 (CCPA 1940), gives this general rule: "It is well settled that in cases involving chemicals and chemical compounds, which differ radically in their properties it must appear in an applicant's specification either by the enumeration of a sufficient number of the members of a group or by other appropriate language, that the chemicals or chemical combinations included in the claims are capable of accomplishing the desired result".

See *In re Fisher*, 427 F.2d 833, 166 USPQ 18 (CCPA 1970) (contrasting mechanical and electrical elements with chemical reactions and physiological activity). See also In re Wright, 999 F.2d 1557, 27 USPQ2d 1510 (Fed. Cir. 1993); *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). This is because it is not obvious from the disclosure of one species, what other species will work.

The presence or absence of working examples

There no examples or test data in vivo or in vitro to support all the methods as presently claimed.

The quantity of experimentation necessary

Since the nature of the method is so unpredictable, and since the claims are drawn the method for treating an estrogen deficient women has a *risk* of developing breast cancer and since there is a lack of guidance present in the specification, the skilled artisan would have to undertake undue experimentation to practice the claimed invention commensurate with the scope of the claims.

The instant claims are drawn to the method for symptoms of estrogen deficiency (claim 28). The specification lacks guidance and examples as to how one of ordinary skill in the art at the time of invention would utilize the claimed method of treating the estrogen deficiency in woman and the risk associated with in a woman using extracts of *Cimicifuga racemosa* wherein the woman has the breast cancer, has had breast cancer, or has a risk of developing breast cancer.

In order to practice the claimed invention commensurate in scope with the instant claims, the skilled artisan would have go through undue experimentation to use the invention as presently claimed without further guidance. Specification does not teach how all the methods as presently claimed can used successfully for such treatments as claimed.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sabiha Qazi whose telephone number is (571) 272-0622. The examiner can normally be reached on any business day.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Padmanabhan, Sreeni (acting) can be reached on 571-272-0629. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Friday, February 16, 2006

BIHA QAZI, PH.D
PRIMARY EXAMINER